

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

In Re: Methyl Tertiary Butyl Ether ("MTBE")
Products Liability Litigation

Master File No. 1:00 – 1898
MDL 1358 (SAS)
M21-88

This Document Relates to:

Tonneson, et al. v. Sunoco, Inc., et al., No. 03 Civ. 8248
Basso, et al. v. Sunoco, Inc., et al., No. 03 Civ. 9050

**DEFENDANT EXXON MOBIL CORPORATION'S REPLY MEMORANDUM OF LAW
IN SUPPORT OF ITS MOTION *IN LIMINE* TO EXCLUDE TESTING ANALYSIS OF
PLAINTIFFS' WELL WATER BY FRIEDMAN & BRUYA INC**

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I. INTRODUCTION

Plaintiffs could have hired a certified laboratory in New York to test plaintiffs' drinking water for MTBE. Instead, they had samples flown across the country to Seattle for analysis by a lab that is only certified to test waste water. Then plaintiffs objected to the production of the underlying quality control documentation as "attorney work product." Review of that documentation reveals multiple errors and omissions rendering the data unreliable. Accordingly, it should be excluded from trial under both Rules 702 and Rule 403.

To use a chemistry analogy, we are going to bring the relevant issues above the "noise level" of the instrument or—in this case—Plaintiffs' Opposition, by focusing on the issues which undeniably demonstrate that the data generated by Friedman & Bruya, Inc. ("F&B") is inadmissible. Specifically, the methodology F&B employed fails to adhere to established quality control criteria mandated by USEPA and New York State for the testing of drinking water.

Plaintiffs devote multiple pages of their Opposition ("*Pl. Opp.*") to an outline of the *Daubert* standard on the admissibility of opinion testimony, but ExxonMobil's motion seeks to exclude data, not opinion. Moreover, it is clear from the very title to ExxonMobil's motion that it only seeks to exclude the data generated by F&B, not all data reflecting MTBE detections below 10 ppb. ExxonMobil does not dispute the relevance of MTBE concentrations below New York's MCL of 10 ppb. Such detections are relevant because New York considers water to be safe and potable at those levels. Currently, however, there is no evidence that MTBE remains in any of the plaintiffs' wells. Of course, plaintiffs would like to argue that MTBE is still present, at parts per trillion, so as to inflate their damages, but such testing data wholly lacks credibility.

Despite plaintiffs' effort to confuse the issues, it is crystal clear that any probative value of their purported part per trillion MTBE levels will be far outweighed by the confusion and delay of trial that will occur if this data is admitted into evidence.

II. ARGUMENT

A. ExxonMobil Seeks to Exclude Data Not Opinion Testimony

The proper standard under which to analyze data which has an "aura of scientific infallibility" was outlined by ExxonMobil in its Motion at 4-5. The factors to consider include the potential rate of error, the existence and maintenance of standards, the care and concern with which a scientific technique has been employed, and whether it appears to lend itself to abuse. *United States v. Lech*, 895 F. Supp. 582, 585 (S.D.N.Y. 1995), citing *United States v. Jakobetz*, 995 F.2d 786, 794 (2d. Cir. 1992). Plaintiffs ignored and, in fact, side-stepped this standard in their Opposition. But regardless of whether plaintiffs' data is analyzed under that standard or *Daubert*, as outlined below, it should be deemed inadmissible.

Plaintiffs recitation of the law begins with a truncated quote from this Court's opinion in the case of *Santoro ex re. Santoro v. Donnelly* where the Court identifies the *Daubert* factors employed to assess "reliability" according to Plaintiffs. *Pl. Opp.* at 4. But, reliability of what? An expert's methodology? Dr. Bruya, whose laboratory is based in Seattle and who is outside the subpoena power of the Court, has not been designated to testify as an expert. Indeed, why would he have been? According to Plaintiffs (who attempted to withhold his analysis on a work product basis) he simply employed a standard EPA method to test plaintiffs' water for MTBE, just like the NYSDEC's contract laboratory. *Id.* So, whose testimony would defendants be subjecting to the fire of cross-examination at trial? *Pl. Opp.* at 10. Plaintiffs' disingenuous analysis is based on an improper standard, and, thus, it simply misses the mark.

B. F&B's Lack of Certification is Not a Meaningless Formality

Plaintiffs say that F&B is “certified in multiple states” yet they argue that certification is irrelevant for testing drinking water. *Pl. Opp.* at 14. But the certification programs of the states implementing the USEPA’s National Environmental Laboratory Program (“NELAP”) outline the state of the art with respect to the chemical analyses of drinking water. NELAP distinguishes laboratory certifications by “matrix,” *e.g.*, by potable water versus waste water, as well as other parameters. *Def. Memo.* at 6. When Dr. Bruya states that his lab has been accredited for “the analysis of volatile organic chemicals since 2004” (Bruya Decl. at ¶3) he misleads the reader into thinking the matrix he may be testing is irrelevant, but it is not. Likewise, plaintiffs repeatedly use the term “water” generically as though the relevant regulations do not distinguish between types of water, but they do. *See e.g., Pl. Opp.* at 3.¹ This is because the drinking water methods are concerned with human health and, therefore, they are designed to detect chemicals at low levels (*i.e.*, below the MCL). They have important quality controls that 8260B does not. *See infra* at II.C. F&B’s certification to test waste water offers no indicia of its ability to reliably test drinking water because audits of F&B’s waste water analyses have no relevance here. *Pl. Opp.* at 2. ExxonMobil’s point was not that F&B is never audited, but that F&B is not audited for the testing of drinking water. If it had been, its failure to adhere to applicable quality controls would have been identified by the auditing agency. *Maney Aff.* at ¶12.

¹ Plaintiffs cite Dr. Bruya (at ¶16 of his Declaration) for the obvious point that EPA Methods 8260B and 524.2 are both used to measure MTBE in “water.” Plaintiffs meant to cite ¶15. There, Dr. Bruya correctly states that 8260B (the method F&B modified) is associated with the Resource Conservation and Recovery Act (which is devoted to waste water). He incorrectly states, however, that 524.2 is associated with the Clean Water Act. It is authorized for use under the Safe Drinking Water Act. *See* 40 C.F.R. § 141.40. Dr. Bruya might have been more familiar with 524.2 if his laboratory was certified to use it.

C. **The Quality Control Differences Between the Drinking Water Methods and 8260B Are Significant and F&B Failed to Employ Them**

Plaintiffs' complain that Dr. Maney failed to explain what "important quality controls" are missing from 8260B. *Pl. Opp.* at 6. But he did explain them. Plaintiffs also belittle the EPA and New York regulations that authorize Method 524.2, not 8260B, for the testing of drinking water. They say this argument is "form over substance." *Pl. Opp.* at 5.² EPA would not agree.

In EPA's Final Rule promulgating the National Primary Drinking Water Regulations for certain volatile organic chemicals (VOCs) and the methods for detecting these chemicals in drinking water (including method 524.2 and others known as the "500 series") it noted:

Disapproval of the 600 Series Methods. In addition, on May 27, 1986 (52 FR 19076), EPA requested comment on whether to approve the 600 series methods (i.e., EPA's analytical methods for detecting volatile synthetic organic compounds in wastewater ...) for compliance monitoring since a number of comments to the November 1985 notice suggested they be approved as well.

EPA has evaluated the comments and determined that the 600 series methods are technically very similar to the 500 series methods (e.g., the analytes covered, and the analytical columns, detectors, and chromatographic conditions are the same). However, EPA has determined that the methods are not interchangeable for various reasons. First, their analytical objectives are different. The 500 series methods emphasize detectability at low levels while the 600 series methods do not focus on measurements near the MCLs (the sample volume is 5 ml in Method 624 versus 25 ml in Method 524.1). Second, the specific quality control requirements that must be met for the 500 series and the 600 series methods are different. ... For example, the 500 series methods include a requirement that laboratories analyze quality control standards within 60 and 140 percent of the expected value.... Therefore, EPA has not included the 600 series methods in this regulation as acceptable analytical methods for compliance monitoring....

52 Fed. Reg. 25690 (July 8, 1987)(emphasis added).

² Plaintiffs cite Dr. Bruya for the assertion that Method 8260 is the most "widely accepted and recommended" method for the detection of fuel oxygenates in "water." *Pl. Opp.* at 6; *Bruya Decl.* at ¶¶ 15-17. This was news to Dr. Maney who authored portions of the EPA's Guidance for this method. *Maney Aff.* at ¶13. In any event, a review of Dr. Bruya's Declaration reveals that he made no statement to this effect.

Dr. Maney recited these significant differences in quality control at his deposition:

Q. And with respect to how the MDL -- how the description that is contained here in 524.2 1.2, if you use the same compound, the same instrument, and the same matrix, but a different EPA method, would it be possible to also obtain the same ranges of MDLs with MTBE in water?

A I'm not quite sure what you're getting at. But if you're trying to make methods equivalent, there's similarities between methods, but there are differences, and some of them can be subtle and some of them can be significant. As I stated in my affidavit, the key things that jump out and scream about using 8260B as opposed to 524.2 is, one, your MDLs were calculated incorrectly for the Safe Drinking Water Act program, and, as importantly, you didn't run low-level standards at the reporting limit, which is key for documenting the accuracy of your analysis at those low levels. If you followed the 524.2 and SDWA guidance, you would have done those, and you would have documented how well you can or cannot quantitate at low levels.

Declaration of Jennifer Kalnins Temple ("*Kalnins Decl.*"), Ex. A at 30:2-25.

To be clear, while there were numerous problems and errors in F&B's analyses (it would take well more than 10 pages to respond to every distortion in Plaintiffs' Opposition) there are two very significant quality control differences between the drinking water methods, like 524.2, and the waste water methods, like 8260B, and F&B did not employ them.³ They make no excuse for the first and they misconstrue the facts on the second.

First, as outlined at ¶ 25 of Dr. Maney's affidavit, the EPA manual on drinking water methods states that Method Detection Limit studies must be performed over several days to

³ Dr. Bruya claims the State of New Mexico considers Methods 524.2 and 8260 to be equivalent. *Pl. Opp.* at 9; *Bruya Decl.*, ¶ 15. Notably, Dr. Bruya did not attach a copy of the page from the website of the New Mexico Department of Health to which he refers. In any event, New Mexico has adopted the Safe Drinking Water Act regulations (40 C.F.R. Part 141) which mandate the use of the 500 series of methods for the testing of VOCs in drinking water. 20.7.10. §100 N.M.A.C. (April 16, 2007); 40 C.F.R. § 141.24 (2007). Moreover, Dr. Maney spoke with the Section Supervisor (Tim Chapman) of the New Mexico laboratory whose name appears on this webpage (<http://www.sld.state.nm.us/proc.asp>). He stated that the comment on this page was made in error, he was perturbed by its mischaracterization, and he intends to have it taken down from the internet. ExxonMobil can submit an affidavit to this effect if necessary.

account for day-to-day variability in the detection limits of the lab's instruments. MDL studies allow a lab to distinguish between actual detections versus the "noise level" of the instrument. They identify the lowest concentration at which a lab can detect a chemical with 99% certainty. The results are method-specific and chemical specific.⁴ Every MDL study F&B performed was inappropriately conducted over several hours. Plaintiffs offer no excuse for this quality control failure. F&B conveniently picks and chooses the standards to follow and, because it is not certified to test drinking water, it need not worry about audits that would pick up these failures.⁵

F&B's MDL studies resulted in MDLs for MTBE at 0.015 ppb in February 2006, at 0.017 ppb in March 2007, at 0.011 in February 2008, and at 0.01 ppb in September 2008. *Maney Aff.* at ¶ 24, 36, 26, 27. Over and above the problem of not performing these studies over several days, Dr. Maney outlined errors in their calculation.⁶ *Id.* Plaintiffs claim that F&B "conservatively calculated an MDL of 0.020 ppb which is 100 to 30% higher than the MDL Exxon takes issue with." *Pl. Opp.* at 11. This statement is false. It attempts to confuse the

⁴ Plaintiffs make much of published MDLs in the parts per trillion range for other chemicals like benzene. This side-show is irrelevant because MDLs are chemical specific, some are easier to detect than others, and EPA's published MDL for MTBE by Method 524.2 is 1.2 ppb, well above (60 times) F&B's purported MDLs for MTBE at <0.02 ppb. *See Kalnins Decl.*, Ex. A at 25:14-26:2.

⁵ F&B did employ the 25 mL sample volume referenced by the EPA in its Final Rule authorizing the 500 series methods (*Pl. Opp.* at 7). Of course, this design criteria for testing at low levels bears no relation to any demonstration of accuracy, so it is not surprising F&B followed it.

⁶ Much of Plaintiffs' argument on this issue (and others) is to blame errors on their computer software and then to rely on EPA guidance that allows the use of such software. *Pl. Opp.* at 12. Anyone who has seen Microsoft Windows "crash" knows the fallibility of software. Dr. Maney never testified that it was inappropriate to use software or that one has to perform all calculations by hand. *Pl. Opp.* at 11-12. That would be absurd for large laboratories. Rather, he testified that software's default settings had to be properly set to ensure that software properly computes calculations. It is standard science not to round down figures greater than 0.5. For example, when you have a figure such as 0.67, you do not round the figure down to 0.6, and you do not let your computer software do it either. *Kalnins Decl.*, Ex. A at 91:9-92:3.

concepts of Method Detection Limits and Minimum Reporting Limits (“MRL”). A MRL is the smallest measured concentration of a substance that can be reliably reported using a given analytical method. It is the “less-than” value reported when an analyte either is not detected or is detected at a concentration less than the MRL. As outlined in Dr. Maney’s affidavit at ¶ 30, EPA guidance for both the drinking water and waste water methods state that MRLs should be identified as 5-10 times the calculated MDL. F&B’s reporting limit of 0.02 ppb for MTBE is unreliable because it is only 1.33 to 1.18 times F&B’s (erroneously) calculated MDLs. *Maney Aff.*, ¶¶ 29-40. Errors compound errors in the analysis of F&B.

Second, and equally important, the drinking water methods direct laboratories to run low level quality control standards (e.g., Laboratory Field Blanks or Laboratory Control Samples) at their MRL every analysis day and they should not report contaminants at levels less than the level at which they can routinely analyze their lowest standard. *Maney Aff.*, ¶ 48. F&B did not run quality control samples at their reporting limit of 0.02, so there is no evidence F&B can reliably detect MTBE at such levels. *Def. Memo.* at 9.

Plaintiffs again create confusion by mixing up the concepts of initial calibration with continuing calibration. A series of initial calibration standards (e.g., F&B used 0.02 ppb, 0.2 ppb, 0.5 ppb, 1 ppb, 2.5 ppb, 5 ppb, and 10 ppb) are analyzed to determine the laboratory instrument’s response (and sensitivity) to a concentration range of the chemical. *Maney Aff.*, ¶ 38, 70. Once the lowest level at which the instrument can detect the chemical is identified (by way of calculating the MDL and MRLs), continuing calibration standards are run at the level of the MRL every day (according to drinking water guidance, but not waste water guidance) to ensure the sensitivity of the instrument. *Maney Aff.*, ¶ 48. Under this guidance, F&B should run 0.02 ppb standards every day, but they do not.

EPA Guidance for the waste water methods states that a Laboratory Control Sample below the relevant MCL (which is 10 ppb for MTBE) may be used for this purpose (*e.g.*, 1.0 ppb or 2.5 ppb like F&B employed) because these methods are not concerned with low level detections. *Maney Aff.*, ¶ 49.⁷ F&B followed the guidance for waste water analysis. But running daily standards at the MRL is essential for determining the accuracy of low detections. To argue that initial calibration standards meet the daily MRL requirement (before the MRL has even been calculated) is disingenuous. However, as noted by Dr. Maney, if one was to use F&B's initial calibration standards for this purpose, one would find that even the initial standards suffered from error rates as high as 100%. *Maney Aff.* at ¶ 38.

Plaintiffs make much reference to the analytical equipment F&B used to conduct its analysis. According to Dr. Bruya, "the actual level at which either method will report a positive detection of MTBE is determined by the testing equipment...." *Pl. Opp.* at 7. Were it that simple EPA and the states would have no need to certify laboratories for methods and matrices. Dr. Maney never criticized F&B's equipment and, as outlined above, EPA rejected this notion as having any impact on the critical differences between these methods. Its like saying drunk drivers fair just as well as sober ones when driving Volvos.

Dr. Maney never said that it is impossible to test for MTBE at parts per trillion levels. What Dr. Maney did say is that it "pushes the envelope" but it can be done if proper methods and controls are used. *Kalnins Decl.*, Ex. A at 35:9-36:5 ("And if you are making determinations for analysis or drinking waters, people -- waters that people are consuming, you typically -- you do

⁷ See also Method 8260B (<http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/8260b.pdf>) at 7.5.9.1 and Method 5000 (<http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/5000.pdf>) at 8.3.3.1.

use 524.2. In all my years of running a laboratory, when we were supplied with drinking waters, we had to use the drinking water method. Now, over and beyond the regulatory requirements, the advantages of using 524.2 for getting accurate low levels -- and I mean low levels that normal labs do, not pushing the envelope, which was attempted here in this particular work -- you want to have the quality controls that these methods and guidance require....”) (emphasis added). F&B did employ not them.⁸

D. F&B’s Failures Render its Data Inadmissible

As outlined above at II.A., the Second Circuit’s standard for assessing the reliability of scientific evidence requires the Court to consider the potential rate of error, the existence and maintenance of standards, the care and concern with which a scientific technique has been employed, and whether it appears to lend itself to abuse. *Lech*, 895 F. Supp. at 585 (S.D.N.Y. 1995). After considering these factors, courts determine whether the probative value of the proffered evidence substantially outweighs its danger of unfair prejudice. *Jakobetz*, 995 F.2d at 794; FED. R. EVID. 403. This standard compels exclusion of the F&B data. *Def. Memo.* at 10-11.

Oddly, plaintiffs entirely ignored this standard in their Opposition and instead argue that the *Daubert* standard for the admissibility of expert opinion applies, but even under that standard the data is inadmissible. The factors to consider are (1) whether the theory or technique has been tested; (2) whether it has been subject to peer review and publication; (3) the known or potential error rate; (4) the existence and maintenance of standards controlling the technique’s operation; and (5) general acceptance within the relevant scientific community. *Pl. Opp.* at 4-5.

⁸ Plaintiffs point out that the NYSDEC’s contract laboratory in Fort Montgomery detected MTBE in non-plaintiffs wells at the level of 0.05 ppb, or 50 parts per trillion, as though this proves their consultant can do it too. *Pl. Opp.* at 4. What Plaintiffs fail to mention is that the NYSDEC’s contractor used one of New York approved drinking water methods (502.2).

F&B modified a waste water method, 8260B SIM, by using a 25 mL sample volume normally required for drinking water analysis, but discarded the related quality controls. This methodology is not accepted in the scientific community for the testing of drinking water and the care with which it was employed cannot really be assessed since F&B is not subject to the relevant audits, but from Dr. Maney's review, it is replete with critical errors and omissions. And while Plaintiffs claim Dr. Maney admitted that F&B's analysis shows the presence of MTBE in plaintiffs' wells (*Pl. Opp.* at 1-2), he never testified to that effect. *Kalnins Decl.*, Ex. A at 100:5-20 ("My opinion is that you shouldn't rely upon his data for the number of issues that I pointed out.") Indeed, as outlined above, when F&B attempted to calibrate its instruments at 0.02 ppb (the reporting limit its claims to achieve), it suffered error rates as high as 100%.


Contrary to Plaintiffs' Opposition (at 4), Dr. Bruya testified that he has only tested for MTBE at part per trillion levels once five or ten years ago. *Kalnins Decl.*, Ex. B at 22:16-24. F&B has never subjected its hybrid methodology to a publication for review by its peers. *Kalnins Decl.*, Ex. B at 279:19-23. And to be clear, F&B's analysis is not consistent with recent "parts per trillion analytical methods" developed by the USGS and the Lawrence Livermore Laboratory for the detection of MTBE in water. *Pl. Opp.* at 8. Dr. Maney explained at his deposition that the USGS method uses a 65° C heated purge while F&B used 30° C. USGS also calculated their MDLs over several days and they ran quality control samples at their MRL as required by method 524.2. Moreover, the USGS MRL for MTBE was determined to be 0.2 ppb which is ten times the MRL reported by F&B (0.02 ppb). Likewise, while the Lawrence Livermore study does not detail its quality controls, it used an isotope dilution method with a purge temperature of 40° C that F&B did not. *Kalnins Decl.*, Ex. A at 39:10-40:17; 44:19-45:3.

III. CONCLUSION

Plaintiffs data should be excluded from trial under Rules 702 and Rule 403.

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Respectfully submitted,


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CERTIFICATE OF SERVICE

I, Jennifer Kalnins Temple, hereby declare under perjury of law that a true and correct copy of the foregoing Reply Memorandum of Law in Support of Exxon Mobil Corporation's Motion *in Limine* to Exclude Testing Analysis of Plaintiffs' Well Water by Friedman & Bruya Inc., and the Declaration of Jennifer Kalnins Temple filed in support, was served this 8th day of December, 2008, upon counsel for Plaintiffs via electronic mail and upon all other counsel via Lexis-Nexis File and Serve.


Jennifer Kalnins Temple